



1. SITUATION

a. THE INFLUENZA PANDEMIC THREAT.

- 1) Influenza viruses have threatened the health of animal and human populations for centuries. Their genetic and antigenic diversities and their ability to change rapidly due to genetic reassortment and mutations make it very difficult to develop a universal vaccine and highly effective antiviral drugs.
- 2) A pandemic occurs when a novel strain of influenza virus emerges with the ability to infect and efficiently spread among humans. Because humans lack immunity to the new virus, a worldwide epidemic, or pandemic can result. Each of the three pandemics in the last century resulted in the infection of approximately 30 percent of the world population and the death of from 0.2 percent to 2 percent of those infected.
- 3) Avian viruses were involved in all three 20th century pandemics. The 1918 pandemic is generally regarded as the deadliest disease event in recorded human history. The current pandemic threat arises from an outbreak of highly pathogenic avian influenza (HPAI) H5N1 in birds. In 1997, the H5N1 avian influenza virus appeared in poultry in Hong Kong and infected 18 people resulting in 6 deaths. Since then, the virus has spread among domestic and wild bird populations in Asia, Europe, and Africa resulting in the loss of over 200 million birds. Moreover, the virus can infect other animals, including long-range migratory birds, pigs, cats, and humans. Evidence strongly indicates that HPAI H5N1 is now endemic in parts of Asia, having established a permanent ecological niche in poultry.
- 4) To date, there are more than 318 confirmed cases of human H5N1 infection from twelve countries with a case-fatality rate of over 60%. This avian virus has met all prerequisites for the start of a pandemic except one: the ability to spread efficiently and in a sustained manner among humans. The high mortality is in part due to a lack of prior immunity to the virus and the ability of H5N1 to cause highly lethal primary viral pneumonia and acute respiratory distress syndrome (ARDS). It is reasonable to expect that either the H5N1 or another HPAI virus will emerge and cause an influenza pandemic.



**b. POTENTIAL GLOBAL IMPACT OF PANDEMIC INFLUENZA (PI).**

- 1) All nations face considerable challenges in mounting an unprecedented, coordinated global response to an influenza pandemic. Once a fully transmissible virus emerges, its global spread is considered inevitable. Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it. Pandemics of the previous century encircled the globe in 6 to 9 months, even when much of international travel was limited to ship or rail. Given the speed and volume of international air travel today, the virus could spread more rapidly, possibly reaching all continents in weeks or months.
- 2) Widespread illness will occur. Infection and illness rates are expected to be higher than during seasonal epidemics of normal influenza. It is estimated that a substantial percentage of the world's population will require some form of medical care.
- 3) Drugs and vaccine will be in great demand; however supplies of vaccines and antiviral drugs, the two most important medical interventions for reducing illness and deaths during an influenza pandemic, will be inadequate in all countries at the start of a pandemic and for many months thereafter. Effective vaccines cannot currently be produced in anticipation of a pandemic virus. Inadequate supplies of vaccines are of particular concern, as vaccines are generally considered the best countermeasure for protecting populations. Many resource poor countries may have no access to vaccines throughout the duration of a pandemic and have very limited supplies of infection control and supportive care materiel. Even countries with large investments in healthcare and public health infrastructures will face the challenges of scarce resources in an atmosphere of extreme demands.
- 4) The number of deaths during influenza pandemics has varied greatly. Death rates are largely determined by four factors: the number of people who become infected, the virulence of the virus, the underlying characteristics and vulnerability of affected populations, and the effectiveness of clinical interventions and preventive measures. Within some countries those who do not receive effective medical care during inter-pandemic periods (e.g., low rates of influenza vaccine coverage) are likely to bear a disproportionate burden of excess deaths





from pandemic influenza. Accurate predictions of mortality cannot be made before the pandemic influenza virus emerges and begins to spread.

- 5) Economic and social disruption may be great. High rates of illness, hospitalization, and worker absenteeism are expected, and these will contribute to social and economic disruption. Social disruption may be greatest when rates of absenteeism impair essential services, such as healthcare, public safety, power, food supply, transportation, and communications.

c. POTENTIAL IMPACT ON THE UNITED STATES.

- 1) Despite annual vaccination programs and advanced medical technologies, an estimated 36,000 influenza deaths and 226,000 hospitalizations occur each year in the United States. Based on current models of disease transmission, a new pandemic could affect 30% of the U.S. population and result in the deaths of 200,000 to two million U. S. residents.
- 2) A pandemic's impact will extend far beyond human health. It will undermine many of the day-to-day functions within our society and thus could significantly weaken our economy and national security. Worker absentee rates (due to illness, care giving, exposure avoidance, etc.) are projected to reach 40% at the height of a pandemic. Businesses and government agencies must address how they will perform their essential tasks with a high rate of employee absenteeism.
- 3) The longer it takes for an influenza pandemic to begin, the more likely it is that its effects can be mitigated by informed citizens, prepared healthcare teams and public health systems, and proactive leaders. Ultimately, the center of gravity of the influenza pandemic response will be in communities where coordinated efforts will be essential. Refer to Annex B, Disease Intelligence
- 4) Because of poverty, household crowding, and higher prevalence of chronic conditions that suppress immunity, the incidence, complications, and mortality from pandemic influenza may be higher among some sectors of society than among others. During a pandemic, historically lower rates of flu vaccine coverage in these populations may become exacerbated by shortages. Efforts to distribute vaccines and antiviral drugs in such populations may be





hampered by deterioration in usual sources of medical care. Real or perceived injustice may impede the acceptance and effectiveness of isolation and quarantine measures. Moreover, if pandemic influenza starts outside the U. S., early imported cases might occur in immigrant communities with large numbers of undocumented persons, language barriers, and limited access to medical care. Although SLTT governments bear the primary responsibility for confronting these issues, the Centers for Disease Control and Prevention (CDC) and the Federal government are part of the national safety net that will assist local governments with preparing to mitigate deficiencies that are likely to occur at SLTT levels.

d. MISSION AND INTENT OF HIGHER AND SUPPORTING ORGANIZATIONS.

1) National Command Authority (NCA).

The National Strategy for Pandemic Influenza provides a framework for U. S. Government (USG) planning efforts that are consistent with the National Security Strategy and the National Strategy for Homeland Security. It recognizes that preparing for and responding to an influenza pandemic cannot be viewed as a purely Federal responsibility, and that the nation must have a system of plans at all levels of government and in all sectors outside of government that can be integrated to address the influenza pandemic threat. The Strategy provides a high-level overview of the approach that the USG will take to prepare for and respond to an influenza pandemic. In addition, it shows how non-Federal entities are expected to prepare their communities and makes it clear that communities will be the center of gravity in an influenza pandemic.

The Homeland Security Council Implementation Plan for the National Strategy for Pandemic Influenza states that it is the policy of the Federal Government to initiate pandemic response actions at WHO Phase 4, when epidemiological evidence of two generations of human-to-human transmission of a new influenza virus is documented anywhere in the world. This Operation Plan is in conformity with the Implementation Plan.

The USG will collaborate fully with international partners to contain a potential pandemic wherever sustained and efficient human-to-human transmission is documented, and will make every reasonable effort to delay the introduction of pandemic influenza into the





United States. Once these efforts have been exhausted, responding effectively to an uncontained influenza pandemic domestically will require the full participation of all levels of government and all segments of society. Federal agencies must be prepared to supplement and support state and local efforts when directed.

2) Department of Homeland Security (DHS):

Pursuant to Homeland Security Presidential Directive-5 (HSPD-5), the Secretary of Homeland Security, as the principal Federal official for domestic incident management is responsible for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. DHS provides leadership in coordinating and integrating the National Incident Management System (NIMS) to implement the National Response Plan (NRP). Additionally, the Secretary, DHS is responsible for coordinating all Federal emergency support functions, resource allocation, establishing reporting requirements, and conducting ongoing communications with Federal and SLTT governments, the private sectors and Non-Governmental Organizations (NGOs). DHS ensures the integrity of the nation's infrastructure, domestic security, entry and exit screening for influenza at borders, facilitates coordination of the overall response to an influenza pandemic, and provides a common operating picture for all USG departments and agencies. It is also responsible for the National Joint Information Center (JIC). CDC, in coordination with the Department of Health and Human Services, Office of the Secretary (HHS/OS), will participate in contingency planning and exercises, to include as a minimum Strategic National Stockpile (SNS) deployment of medical/non-medical assets, quarantine, and SLTT influenza pandemic readiness. During an influenza pandemic, CDC Senior Management Officials (SMOs), or a designated deployed CDC official, will be responsible for and coordinate actions of all personnel deployed by CDC to a state under the guidance of the DHHS Incident Response Coordination Team (IRCT). Refer to Figure 3 (Chart of Influenza Pandemic Authority and Responsibilities) to Annex D





3) Department of Health and Human Services (HHS).

In accordance with the Pandemic and All-Hazards Preparedness Act (2006), the Secretary of Health and Human Services shall lead all Federal public health and medical response to public health emergencies and incidents covered by the National Response Plan. The National Response Plan (NRP) designates the Secretary of the Department of Health and Human Services (HHS), principally through the Assistant Secretary for Preparedness and Response (ASPR), as the primary coordinator for Emergency Support Function ESF #8 (Public Health and Medical Services). The Secretary of HHS will lead Federal health and medical services response efforts and will be the principal Federal spokesperson for public health issues, coordinating closely with DHS on public information pertaining to the influenza pandemic. Each HHS component must prepare, maintain, update and exercise an operational plan that assigns specific roles and responsibilities in the event of an influenza pandemic. Preparedness must be a shared and coordinated responsibility. CDC will closely coordinate all actions, as appropriate, with the following staff divisions (STAFFDIVs) of the Office of the Secretary and Operating Divisions (OPDIVs) of HHS:

a) Assistant Secretary for Preparedness and Response (ASPR)

The Assistant Secretary for Preparedness and Response serves as the Secretary's principal advisor on matters related to bioterrorism and other public health emergencies. ASPR also coordinates interagency activities between HHS, other Federal departments, agencies, offices and State and local officials responsible for emergency preparedness and the protection of the civilian population from acts of bioterrorism and other public health emergencies. Within HHS, ASPR is responsible for overall coordination of avian and pandemic influenza efforts.

b) Assistant Secretary for Public Affairs (ASPA)

The Assistant Secretary for Public Affairs serves as the Secretary's principal counsel on public affairs matters, conducts a national public affairs program, provides centralized leadership and guidance for public affairs activities within HHS' staff and operating





divisions and regional offices, and administers the Freedom of Information and Privacy Act.

c) Office of Global Health Affairs (OGHA)

The Director of the Office of Global Health Affairs represents HHS to other governments, other Federal departments and agencies, international organizations, and the private sector on international and refugee health issues and facilitates cooperation by Public Health Services Operating Divisions with the Agency for International Development.

d) Administration for Children and Families (ACF)

Administration for Children and Families advocates for the well-being of children and families and supports human services for and education of this population sector pertaining to pandemic influenza. CDC supports ACF and its constituency through risk reduction messages, guidance to pediatric and family medicine providers, and antiviral drugs and pandemic vaccine for vulnerable populations.

e) The Agency for Healthcare Research and Quality (AHRQ)

The Agency for Healthcare Research and Quality supports public health partners on mass vaccination planning and healthcare sector surge capacity planning. CDC will support AHRQ with specialized pandemic influenza guidance.

f) Administration on Aging (AOA)

Administration on Aging advocates for the safety of, well-being of, and access to services for older Americans through support of various service providers and networks. CDC influenza pandemic guidance and risk reduction messages applicable to older Americans will be used by AOA.

g) Centers for Medicare and Medicaid Services (CMS)

Centers for Medicare and Medicaid Services support healthcare payment mechanisms to providers for the care of high-risk, vulnerable, and disadvantaged populations and older Americans. CDC supports the CMS mission during a pandemic by informing providers





on best practices for preventing influenza and treating ill persons and by distributing reduction messages for CMS constituents.

h) Food and Drug Administration (FDA)

Food and Drug Administration regulates, licenses, and approves vaccines, antiviral drugs, and diagnostic tests for pandemic influenza. CDC SMEs collaborate with and support FDA in developing a safe and effective pandemic vaccine, antiviral drugs, and diagnostic tests.

i) Health Resources and Services Administration (HRSA)

Health Resources and Services Administration provides planning guidance and technical assistance on influenza pandemic preparedness to the healthcare sector. CDC and HRSA work together to help the public health and patient care sectors plan for and respond to an influenza pandemic.

j) Indian Health Service (IHS)

Indian Health Service supports pandemic influenza health care services for American Indians and Alaskan Natives. CDC supports IHS with risk reduction messages, patient care guidance, and medical interventions.

k) National Institutes of Health (NIH)

National Institutes of Health conduct basic and clinical research to develop new drugs, vaccines, and diagnostic tests for pandemic influenza and to understand the pathophysiology of influenza viruses. CDC SMEs collaborate with and support NIH efforts in developing safe and effective pandemic vaccine, antiviral drugs, and diagnostic tests.

l) Substance Abuse and Mental Health Services Administration (SAMHSA)

Substance Abuse and Mental Health Services Administration supports SLTT substance abuse and mental health agencies' response to an influenza pandemic and provides guidance to reduce anxiety and stress in the general population due to the threat and impact of pandemic influenza. CDC supports SAMHSA through the development of





influenza pandemic risk reduction messages that are applicable to various populations. CDC and SAMHSA work together on responder resiliency issues.

4) Other Departments, Agencies and Organizations.

a) Department of Agriculture (USDA):

USDA conducts surveillance for influenza in livestock, including poultry, and for the domestic veterinary response to a virus with pandemic potential. The Department will determine which animal products or live animals have the potential for introducing or spreading a pandemic virus. Also, they will decide which live animals must undergo USDA-supervised quarantine and health examination prior to final entry into the U. S. USDA ensures the commercial food supplies derived from poultry and egg products are not contaminated or adulterated. USDA, in coordination with Department of the Interior (DOI), monitors wild bird and animal populations throughout the U. S. for indications of viral activity. CDC coordination with USDA is required to assist in identifying, sequencing, and confirming laboratory findings and containment efforts as required.

b) Department of Commerce (DOC):

In coordination with DHS, DOC will work with private sector, research, academic, and government organizations to promote critical infrastructure efforts, including using its authority under the Defense Production Act to ensure the timely availability of industrial products, vaccines, antiviral drugs, materials, and services to meet homeland security requirements. DOC coordinates as needed with HHS/CDC to expedite export licenses of strains, test kits/equipment, and technology to specified destinations in order to allow rapid identification of strains, and provide on ground support to contain/mitigate a pandemic. CDC works with DOC and its governmental, non-governmental, business, and alliance partners to ensure influenza pandemic planning includes all critical entities to minimize the economic impact of the pandemic.





c) Department of Defense (DOD):

DOD currently conducts medical surveillance and detection domestically and abroad in coordination principally with HHS and CDC. DOD will provide support in response to an influenza pandemic when directed by the President or upon approval by the Secretary of Defense of a request from a Federal department or agency. This assistance may include support to both containment and stability operations. CDC works with DOD to plan and coordinate epidemiological surveillance, quarantine enforcement, laboratory surge, and support for SNS transportation and security when required to minimize travel disruptions and consequent impact on economic activity.

d) Department of the Interior (DOI):

DOI, in coordination with USDA, monitors wild bird and animal populations throughout the U. S. for indications of viral activity. It provides permits and inspects wildlife and wildlife products being imported and exported into and out of the United States. DOI enforces and publicizes wildlife border controls and, if appropriate, utilizes its permitting authorities to restrict the import or export of wild birds. CDC works with DOI to identify and/or to confirm a pandemic influenza virus.

e) Department of Labor (DOL):

DOL in conjunction with HHS and other sector-specific agencies works with the private sector to develop and disseminate information to promote the health and safety of personnel performing essential functions. CDC will assist DOL as required to provide policy guidance related to worker safety.

f) Department of State (DOS):

DOS coordinates with foreign governments and international and non-governmental organizations on all efforts pertaining to an international AI response. These efforts include ensuring that other nations join us in our efforts to contain or slow the spread of a pandemic influenza virus, limiting the adverse impacts on trade and commerce, and coordinating our efforts to assist other nations that are affected by the pandemic. CDC works with DOS to provide a coordinated, integrated, and prioritized influenza pandemic





plan in collaboration with the World Health Organization (WHO) and international partners. DOS/embassy must approve all CDC international travel. In an emergency, US embassy and OGHA staff can expedite this process.

g) Department of Transportation (DOT):

DOT coordinates transportation sector efforts and works to ensure that appropriate, coordinated actions are taken by the sector to limit spread and impact of an influenza pandemic while preserving the movement of essential goods and services. CDC will coordinate with DOT to ensure influenza planning includes quarantine measures that cover all transportation sectors and border stakeholders to delay the spread of influenza and its associated health effects.

h) Department of Education (ED):

ED coordinates with DHS and public and private education entities to collect and disseminate model influenza pandemic plans for adoption at the SLTT levels, information on exercises and training, and monitors and shares information on influenza pandemic impacts. CDC will coordinate with ED to ensure influenza planning at all levels to include SLTT information to schools, businesses, and private partners.

i) Department of the Treasury (TREAS):

TREAS monitors and evaluates the economic impacts of an influenza pandemic, helps formulate the economic policy response and advises on the likely economic impacts of containment/mitigation efforts. The Secretary of Treasury is also responsible for preparing policy responses to pandemic-related international economic developments; for example, leading the Federal Government's engagement with the multilateral development banks (MDB) and international financial institutions (IFI), including encouraging the MDB and IFI efforts to assist countries to address the impact of an influenza pandemic. CDC will work with TREAS to facilitate medical countermeasure production and procurement.





j) State, Local, Territorial, and Tribal (SLTT) Governments:

SLTTs will be the “centers of gravity” when responding to an influenza pandemic. They derive authority and responsibility to engage in public health from State constitutional requirements or equivalent territorial or tribal authorities. By pulling together business, healthcare, community, and faith-based organizations, they harness the power of the community in responding to an influenza pandemic.

k) World Health Organization (WHO):

WHO organizes global influenza surveillance world-wide through its network of collaborating centers, conducts outbreak investigations and coordinates rapid containment responses through the Global Outbreak and Response Network (GOARN), improves understanding of health and the economic burden of influenza, and develops pandemic preparedness planning guidance. The November 2005 WHO Global Influenza Preparedness Plan defined the phases of increasing public health risk associated with the emergence of a new influenza virus subtype that may pose a pandemic threat. CDC and the USG provide technical assistance and support to WHO as needed and requested in responding to an international influenza pandemic.

Refer to Table 1, Para 3. a.

e. PLANNING ASSUMPTIONS.

1) HHS Assumptions.

Refer to Part 1: Strategic Plan, HHS, Pandemic Influenza Plan.

2) CDC Assumptions.

- a) The initial responsibility for a domestic pandemic response rests with SLTT authorities.
- b) A pandemic will increase the likelihood of sudden and potentially significant gaps in public services and safety.
- c) A severe pandemic will overwhelm existing healthcare capacities in the U.S. and result in a large number of deaths.





- d) The Director, CDC can increase the response posture of the Director's Emergency Operations Center (DEOC) at any time. For planning purposes it is assumed it will be manned in the "Alert Mode" upon declaration of WHO Phase 4 and USG Stage 2.
- e) Under certain scenarios included within WHO Phases 4 - 6, (USG Stages 2-6) some of the usual functions and activities within CDC will be significantly reduced or ceased in order to permit a "surge" to accomplish CDC's essential pandemic functions and public health responsibilities and, within organizational capabilities, to support critical SLTT public health functions.
- f) Containment allocations of antiviral drugs may be pre-deployed to international locations or staged and stored in the United States. Up to 5% of the SNS total will be earmarked for international containment and shipped, as directed, by HHS/CDC.
- g) Increased public anxiety will cause increased psychogenic and stress-related illness compounding the strain on health facilities.
- h) A significant number of non-citizens as well as uninsured U. S. citizens will require medical and public health intervention.
- i) Public Health Service (PHS) commissioned corps personnel serving in critical CDC positions will remain assigned and available to CDC during an influenza pandemic.
- j) PHS commissioned corps personnel from other HHS agencies will be available to reinforce CDC's capability under ESF #8 to provide public health services.

f. CDC TASK ORGANIZATION.

Coordinating Centers/Coordinating Offices/National Institute For Occupational Safety And Health (CC/CO/NIOSH) will provide personnel, services and assistance to the Director's Emergency Operations Center (DEOC) in accordance with its mission statements in support of CDC operations initially upon declaration of WHO phase 4; USG stage 2, and throughout the duration of an influenza pandemic. Refer to Annex A (DEOC task organization).





2. MISSION.

CDC will immediately detect the onset of outbreaks with influenza pandemic potential; assist the containment of such outbreaks; delay the introduction and transmission of pandemic viruses in the United States; assist SLTT health authorities in the management of an influenza pandemic event.

3. EXECUTION

Director's Intent:

“Influenza pandemic has the potential to represent the worst-case scenario of any public health emergency. The influenza pandemic, which occurred in 1918-1919, demonstrated that influenza could kill millions of people world-wide, cause societal disruption on an unprecedented scale, and disrupt economies. Despite medical and technological advances since 1918, increased global population size and movement suggest that new pandemics could cause similar effects. My intent is to use this operations plan to provide direction and guidance to CDC Organizations to help the United States Government and the Department of Health and Human Services prepare, mitigate, respond to and recover from a public health emergency of this magnitude. I intend to use the entire spectrum of resources available to the Centers for Disease Control and Prevention (CDC) as necessary. CDC will operate under the National Incident Management System and will coordinate with international, Federal and State partners to ensure a rapid and coordinated response. I consider the indicators of success to be: 1) early recognition and reporting of a human outbreak through the use of global and domestic disease surveillance resources; 2) rapid assistance with the necessary resources and actions to contain outbreaks and reduce and delay further spread of the disease; 3) when available, the adequate and successful provision of vaccine to provide prophylaxis to at risk populations; 4) the adequate and successful provision of antiviral medications to treat affected populations. As the director, I remain wholly and fully committed to the health and well-being of this nation. ”



**a. CONCEPT OF OPERATIONS.**

The public health and medical services (ESF #8) response to an outbreak of pandemic influenza will be directed by HHS/OS in support of the DHS responsibility to manage the USG response. CDC is a subordinate OPDIV (Operating Division) of HHS and will be guided by the WHO phases and linked to the six USG stages (refer to table 1). CDC will use the full spectrum of its resources to accomplish assigned roles, responsibilities, functions, goals, and missions. Refer to Annex C (operations). See also Appendix 9 (phased scenarios) to Annex C (Operations) for a discussion of a range of functions and tasks CDC will conduct during the six different who phases.



WHO Global Pandemic Phases and the Stages for Federal Government Response

Stages of Federal Government Response

WHO Phases		Federal Government Response Stages	
INTER-PANDEMIC PERIOD			
1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human disease is considered to be low.	0	New domestic animal outbreak in at-risk country
2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.		
PANDEMIC ALERT PERIOD			
3	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.	0	New domestic animal outbreak in at-risk country
		1	Suspected human outbreak overseas
4	Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.	2	Confirmed human outbreak overseas
5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).		
PANDEMIC PERIOD			
6	Pandemic phase: increased and sustained transmission in general population.	3	Widespread human outbreaks in multiple locations overseas
		4	First human case in North America
		5	Spread throughout United States
		6	Recovery and preparation for subsequent waves

STAGE 0		STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
New Domestic Animal Outbreak in At-Risk Country		Suspected Human Outbreak Overseas	Confirmed Human Outbreak Overseas	Widespread Outbreaks Overseas	First Human Case In North America	Spread Throughout United States
GOALS		GOALS	GOALS	GOALS	GOALS	GOALS
Provide coordination, support, technical guidance		Rapidly investigate and confirm or refute	Contain outbreak and limit potential for spread	Delay emergence in North America	Contain first cases in North America	Support community response
Track outbreaks to resolution		Coordination and logistical support	Activate domestic medical response	Ensure earliest warning of first case(s)	Antiviral treatment and prophylaxis	Preserve critical infrastructure
Monitor for reoccurrence of disease		ACTIONS	ACTIONS	Prepare domestic containment and response mechanism	Implement national response	Mitigation illness, suffering, and death
ACTIONS		Initiate dialogue with WHO	Declare Incident of National Significance			Mitigate impact to economy and society
Support coordinated international response		Deploy rapid response team	Support international deployment of countermeasures	Activate domestic emergency medical personnel plans		
Prepare to deploy rapid response team and materiel		Amplify lab-based and clinical surveillance to region	Implement layered screening measures; activate domestic quarantine stations	Maintain layered screening measures at borders		
Offer technical assistance. Encourage information sharing		Prepare to implement screening and/or travel restrictions from affected area	Prepare to limit domestic ports of entry	Deploy pre-pandemic vaccine and antiviral stockpiles; divert to monovalent vaccine production		
POLICY DECISIONS		POLICY DECISIONS	Prepare to produce monovalent vaccine	Real-time modeling; heighten hospital-based surveillance		
Deployment of countermeasures		Pre-positioning of U. S. contribution to international stockpile assets	Contribution to countermeasures for affected region	Prepare to implement surge plans at Federal medical facilities		
		Use of pre-pandemic vaccine	Entry/exit screening criteria; isolation/quarantine protocols	POLICY DECISIONS		
			Diversion of trivalent vaccine production to monovalent	Prioritize efforts for domestic preparedness and response		
			Revise prioritization and allocation of pandemic vaccine and antiviral medications			
WHO Phase 1 or 2 Inter-Pandemic Period		WHO Phase 3 Pandemic Alert Period	WHO Phase 4 or 5 Pandemic Alert Period	WHO Phase 6 Pandemic Period		
					Revision of prioritization and allocation scheme for pandemic vaccine	Federal support of critical infrastructure and availability of key goods and services
						Lifting of travel restrictions

Table 1: WHO Influenza Pandemic Phases and Stages

**b. TASKS TO CC/CO/NIOSH.****BACKGROUND:**

Numbered Actions below are those HHS assigned to CDC from HSC's National Strategy for Pandemic Influenza Implementation Plan. The designated CC/CO/NIOSH is responsible for ensuring that the action is complete and all associated tasks are accomplished (The Action Register contains the narrative for each numbered HSC Action, HHS stated task, and CDC Task as well as other pertinent information). Each of the referenced HSC Actions includes Critical Tasks which were derived from those Actions as well as internal mission analysis. The Critical Tasks are those which must be completed in order for CDC to accomplish its mission. The number in parentheses indicates a Critical Task referring to the applicable HSC Action (e.g., 6.1.3.1-T.01 means HSC Action 6.1.3.1 with CDC Critical Task number T.01). Critical Tasks that do not reference an applicable HSC Action are Implied Critical Tasks derived from missions and objectives of CDC CC/CO/NIOSH (e.g., C.346-T16). Critical Tasks are listed by WHO phases/USG stages during which the tasks should begin. Critical Task activity begun during one phase/stage (while not repeated in the text) may carry over into subsequent phases/stages when necessary and appropriate.

The tasks are organized by staff section/CC/CO/NIOSH and pandemic period:

Inter-Pandemic Period: (WHO Phases 1 – 2, USG Stage 0)

Pandemic Alert Period: (WHO Phases 3 – 5, USG Stages 0 – 2)

Pandemic Period: (WHO Phase 6, USG Stages 3 – 6)

1) Office of the Director (OD).

Provide senior scientific leadership, oversight, Congressional liaison, financial management, informational and situational awareness. Establish countermeasure programs internally to CDC, coordinate with Senior Management Officials (SMOs), and communicate with USG, SLTT and international officials during an influenza pandemic. (6.1.11.2; 8.1.2.4)



**a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****(1) Portfolio Management Project (PMP)/Senior Management Officials (SMO):**

- (a) Develop a plan for how CDC assets will be integrated and managed during an influenza pandemic in all SLTT jurisdictions (C.356-T.04)
- (b) Determine and ensure training for all SMOs both assigned and temporary. (C.356-T.05)

(2) Office of Workforce and Career Development (OWCD):

Ensure all CDC personnel enter and maintain data into CDC Neighborhood to allow the Preparedness and Workforce Management System (PWMS) to produce a by-name roster of personnel to augment the DEOC at the following points:

- (a) Declaration of Pandemic Alert Period.
- (b) Declaration of Pandemic Period.
- (c) CDC at 30% of workforce absentee rate.
- (d) CDC at 45% of workforce absentee rate.
- (e) CDC at 60% of workforce absentee rate. (C.363-T.03)

(3) Financial Management Office (FMO):

Provide influenza pandemic funding, procurement, and distribution across CDC. (C.374-T.05) Reference Annex I (Support Services) for detailed information.

(4) Office of Security and Emergency Preparedness (OSEP):

- (a) Prepare an Influenza Pandemic Continuity of Operations Plan (COOP) for CDC. (C.370-T.04)
- (b) Provide guidance to SLTTs to assure that planning partners and stakeholders adequately address law enforcement and public safety preparedness for activities arising from the impacts of an influenza pandemic. (C.371-T.01)

(5) Office of Health and Safety (OHS):

Establish an influenza pandemic countermeasures program internally for CDC employees and contractors. (C.372-T.04)





(6) **Office of Chief Science Officer (OCSO):**

Oversee and coordinate development of influenza pandemic scientific policies for CDC including clearance procedure for written scientific materials; human subjects protections, privacy, and Institutional Review Board (IRB) procedures; resolution of research vs. public health practice conflicts; Food and Drug Administration (FDA)-related Investigational New Drug/Investigational Device Exemptions (IND/IDE) regulations for drugs, devices, or diagnostics; agency reviews of urgent Requests for Assistance (RFA); and specimen storage procedures. (C.375-T.02)

(7) **Office of Minority and Health Disparities/Office of Strategy and Innovation (OMHD/OSI):**

- (a) Assist and support COTPER, CCID, and other CC/CO/NIOSH in developing processes to work with the CDC/ATSDR Minority Initiative Coordinating Committee (CAMICC), HHS Office of Minority Health (OMH), State Offices of Minority Health, Tribal Boards of Health, and other SLTT agencies to detect and address issues of equity and diversity in official responses to pandemic influenza (C.368-T.01).
- (b) Engage OMHDs 11 cooperative agreement partners and enable their participation in organized responses at SLTT levels to mitigate adverse effects of pandemic influenza in racial/ethnic minority populations and sovereign American Indian/Alaska Native (AI/AN) communities. (C.368-T.02)

(8) **OD/Office of Enterprise Communication (OEC):**

- (a) Oversee matters relating to the reputation and integrity of CDC.
- (b) Conduct influenza pandemic SWOT (Strengths, Weaknesses, Opportunities and Threats) analyses.





- (c) Provide and coordinate timely and accurate responses to legislative inquiries about the influenza pandemic between CDC/Washington (CDC/W) and CDC/ATSDR. (C.366-T.01)
- (d) Develop procedures with CDC/W for receiving, staffing, and responding to White House and Congressional inquiries and correspondence regarding an influenza pandemic. (C.366-T.02)

Protect Human Health

Preparedness & Communication

- (e) Develop pandemic influenza-specific training based on the HHS/CDC Crisis and Emergency Risk Communication curriculum that focuses on the principles of risk communication for Federal, State, local and tribal officials. (6.1.3.3-T.02)
- (f) Provide influenza pandemic-related training in all 10 HHS regions, to include Departmental staff as well as State/local communicators and community leaders within the respective regions. (6.1.3.3-T.03)
- (g) Support and manage the CDC influenza pandemic Speakers' Bureau.

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

(1) PMP/SMO:

- (a) Facilitate exchange of information with SLTT jurisdictions in preparation for and during an influenza pandemic (C.356-T.01)
- (b) Coordinate, monitor and manage the field operations for all CDC assets deployed in the SLTT jurisdiction during an influenza pandemic. (C.356-T.07)

c) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

(1) OSEP:

Provide classified information briefings and papers as requested by the CDC Director and the Incident Manager (IM). (C.369-T.05).



**(2) PMP/SMO:*****Preparedness & Communication***

Ensure early coordination with Federal Partners and the National Operations Center (NOC) and with the Regional Response Coordination Center (RRCC), the Joint Field Office (JFO), and the Joint Information Center (JIC). (6.1.2.2-T.03)

(3) OEC:

- (a) Coordinate information clearance with JIC and CDC/W. (C.366-T.03)
- (b) Provide team-specific data for publication in the IAP or other required reports.
- (c) Provide briefings for CDC Senior Staff not directly involved with the response.
- (d) Liaison to the JIC will attend the daily senior staff update.
- (e) Support the Enterprise Desk in the JIC, as required.
- (f) Attend JIC briefings.

Refer to Appendix 1 (OD) to Annex C.

2) Coordinating Center for Infectious Diseases (CCID).

Provide information, guidance, epidemiological services, immunization technical assistance, and laboratory support to the public health and medical sectors to minimize the impact of an influenza pandemic on the health of Americans. Support the development of plans for countermeasure distribution and tracking, conducting epidemiological investigations, and carrying out surveillance activities at the human – animal interface. Maintain the capacity to slow the importation of pandemic influenza virus subtypes in animals and humans at U. S. ports of entry (POE) and border crossings.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

- (1) Provide guidance to SLTTs to assist them in developing plans to allocate and distribute pandemic vaccine within their jurisdictions, and vaccinate their jurisdictions according to priority groups. (C.341-T.05)





- (2) In coordination with SLTT partners and NCPHI, develop plans for systems to track pre-pandemic and pandemic vaccine doses administered. (C.343-T.05)

International Efforts

Preparedness & Communication

- (3) Provide technical assistance to SLTT partners regarding investigation of cases of Highly Pathogenic Avian Influenza (HPAI)/novel influenza virus subtypes or genotypes with pandemic potential, including the establishment of multi-disciplinary response teams. (4.1.2.5-T.05)

Response & Containment

- (4) Increase the number of CDC staff trained in community containment measures for influenza to increase the cadre available for international response activities. (4.3.1.4-T.03)
- (5) Upon recognition of sustained human-to-human transmission, provide support in the form of technical advice to DOS, as requested and as needed, on if and when to activate international and bilateral travel agreements to limit international travel to the US from affected countries, and when to request implementation of exit screening by affected countries. (4.3.2.1-T.01)
- (6) Develop standards for exit screening regimens for conducting and evaluating exit screening of travelers (U.S. and non-U.S. citizens) for pandemic influenza at international embarkation points. (4.3.2.1-T.02)
- (7) Provide recommendations to DOS, as requested and required, for exit screening minimum standards/evaluation guides and voluntary limitations of travel, for development by DOS of bi-national and multi-national arrangements for exit screening and travel exclusion. (4.3.2.1-T.03)
- (8) Develop pre-departure screening guidelines for communicable diseases posing a serious public health threat (including pandemic influenza) for international passenger airlines and crew members in collaboration with WHO and IATA (4.3.2.1-T.04)





Transportation and Borders

Pandemic Planning

- (9) Provide technical assistance and guidance to DHS/DOT planning efforts to strengthen border and transportation sector capacity. (5.1.1.1-T.01)
- (10) Assess critical infrastructure for COOP and make contingency plans to obtain assistance to maintain needed operations during a pandemic. This would include the pre-event training of USPHS Commissioned Corps (CC) Officers and Medical Reserve Corps (MRC) personnel to perform Quarantine Station activities. (5.1.1.3-T.03)
- (11) Provide technical assistance and guidance to SLTT and private sector transportation partners on responding to pandemic influenza at airports, maritime ports, and land borders. (5.1.2.3-T.01)
- (12) Provide technical assistance for tabletop exercises to give sector participants a sense of logistical challenges likely to be experienced in a pandemic; help identify gaps in preparedness, and assist partners in developing plans for response and recovery. (5.1.3.1-T.02)

Surveillance & Detection

- (13) Identify those steps and requirements if an ill traveler with suspected pandemic influenza is identified to include on-site versus at home quarantine of exposed travelers, use of antiviral prophylactic therapy for exposed travelers, and the initiation of contact tracing and follow-up. (5.2.4.1-T.02)
- (14) Implement exit screening on all travelers departing the United States at all points of departure (air, sea and land), incorporating lessons learned from entry screening. (5.2.4.1-T.04)
- (15) As requested by and in coordination with DOS, work with international organizations and foreign countries to promote exit screening standards for use by foreign countries, and promote voluntary compliance with the use of these measures. (5.2.4.3-T.02)





- (16) Provide technical assistance to DOT and DHS regarding potential triggers for dynamic management/diversion of inbound international flights/vessels containing passengers with suspected pandemic influenza and sites to which flights/vessels could be diverted. Possible circumstances requiring diversion of flights/vessels would include en-route high-risk situations (e.g. occurrence of multiple cases, suspected outbreak, or conditions for high-probability of transmission of confirmed pandemic influenza). Additionally, diversion may be warranted for land-based situations such as a destination airport/port that is overwhelmed by a concurrent quarantine situation or otherwise unable to implement adequate control measures. (5.2.4.5-T.03)
- (17) Establish criteria and case definitions (based on symptoms and high risk exposures - e.g. travel, activity) for case reporting. (5.2.4.6-T.01)
- (18) Meet all flights with ill travelers: evaluate ill travelers; isolate them and arrange for treatment, if needed collect specimens for virologic testing. (5.2.4.6-T.05)
- (19) Engage port agencies (e.g. CBP, TSA, and USCG) in design of surveillance system for in-bound and outbound travelers and goods (directly or indirectly) from/to target areas at U.S. ports of entry. (5.2.4.7-T.01)
- (20) Update education of all port front line staff at POE in exit screening measures. (5.2.4.7-T.02)
- (21) Develop education materials for travelers and undocumented aliens apprehended at and between US ports of entry. (5.2.4.8-T.04)
- (22) Ensure each Quarantine Station has the means to safely dispose of birds or bird products that are denied entry. (5.2.5.2-T.03)

Response & Containment

- (23) Upon request of DOS and in coordination with DOS, provide technical advice to countries for the development of nonpharmaceutical interventions for prevention and containment of cases and contacts in affected countries. (5.3.1.2-T.04)





- (24) Develop and issue travel advisories and/or public announcements for areas where outbreaks have occurred and ensure adequate coordination with appropriate diplomatic, transportation, border stakeholders, and international stakeholders. (5.3.2.1-T.04)
- (25) In support of and by request of DOS, work with the WHO Secretariat and U.S. Government partners to develop protocols that include determinations as to when to restrict travel to the US. Ensure that at-risk countries are aware of these protocols, as appropriate. Activities include the following:
- Remaining in close communication with the WHO Secretariat and other international organizations to stay current on the extent of outbreaks.
 - Conducting intra-HHS OPDIV consultations and discussions.
 - Communicating the best advice to DOS, and other U.S. Government agencies.
- (5.3.1.2-T.12-S02)

Protecting Human Health

Preparedness & Communication

- (26) Work with SLTT and other partners to track adverse events associated with antiviral drugs (6.1.13.9-T.02)
- (27) Work with SLTTs and other partners to develop plans to monitor adverse events associated with pre-pandemic vaccine. (6.1.13.9-T.03)
- (28) Develop protocols for conducting antiviral resistance and effectiveness assessments. (6.1.13.9-T.07)
- (29) Establish/revise preliminary pandemic vaccine and antiviral prioritization for risk groups by leveraging information from pre-pandemic case investigations, laboratory investigations, and influenza surveillance systems. (6.1.14.4-T.02)

Scientific Information Sharing & Accelerated Development

- (30) Publish findings from sequencing of viral isolates.(6.1.15.1-T.05)
- (31) Publish findings from evaluation studies of vaccines, antiviral drugs, and diagnostics (6.1.15.3-T.07)





- (32) Prepare, acquire, qualify, and provide access to reference strains representative of target influenza viruses to vaccine manufacturers. (6.1.17.1-T.01)
- (33) Perform genetic and antigenic analyses of viruses with pandemic potential to identify appropriate vaccine candidate strains. (6.1.17.1-T.01-S.04)

Surveillance & Detection

- (34) Provide technical assistance to SLTT public health laboratory staffs to assess surge capacity in public and clinical laboratories in their jurisdictions, to identify needs to accommodate increased demand during a pandemic, and to identify efforts to address critical gaps. (6.2.1.5-T.07)
- (35) Support SLTT laboratory capacity to ensure reporting of virologic information (6.2.2.1-T.03)

Response & Containment

- (36) Provide specific intervention and infection control guidance for SLTT partners, healthcare workers, and the general public to reduce risk of viral transmission in various settings. (6.3.1.1-T.01)
- (37) Develop Federal guidance regarding strategy for use of community-level non-pharmaceutical interventions for distribution to SLTT public health officials and the public. (6.3.2.1-T.07)

Institutions: Protecting Personnel and Ensuring Continuity of Operations

Preparation & Communication

- (38) Provide a guidance document on identifying and planning for maintenance of critical health care infrastructure (including preservation of blood collection, distribution, and transfusion services). (9.1.2.1-T.02)

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

- (1) Coordinate with health care providers and infectious control societies to identify existing and/or establish new surveillance systems for monitoring clusters of illness and absenteeism among health care workers. (C.327-T.01)





International Efforts

Preparedness & Communication

- (2) Provide technical assistance to foreign public health ministries for development and evaluation of national pandemic influenza emergency response plans.
(4.1.1.1-T.03)

Transportation and Borders

Use Surveillance to Limit Spread

- (3) Provide technical assistance to international partners regarding investigation of cases, clusters, or outbreaks of avian or human novel influenza virus subtypes or genotypes with pandemic potential, including the establishment of multidisciplinary rapid response teams to ensure timely and accurate diagnosis and reporting. (4.2.1.1-T.02).
- (4) Develop USG Stage and WHO-phase specific response protocols for travelers and undocumented aliens encountered with signs and symptoms of influenza or with significant history of exposure. These protocols would be based on phase specific case definition for detection, as well as on criteria for isolation, quarantine, and transport to a medical facility for further treatment and evaluation. (5.2.4.8-T.01)

Protecting Human Health

Preparation & Communication

- (5) In coordination with HHS/OS , other federal and SLTT partners, healthcare and medical societies, and clinical providers, develop model protocols and algorithms for delivery of healthcare under conditions of scarce resources (i.e., phone protocols for call centers, triage algorithms for patient assessment, clinical algorithms for usage of scarce medical equipment, algorithms for determining essential hospital services, and algorithms for reconstitution of healthcare systems to allow provision of essential services). (6.1.2.4-T.02)





- (6) Develop guidance regarding non-pharmaceutical interventions that can decrease the risk of transmitting influenza including isolation, quarantine, and social distancing (including school closure, cancellation of public events, etc.).
(6.1.3.1-T.01)
- (7) Monitor the safety and effectiveness of antiviral drugs using the NEISS-CADES (or other existing surveillance systems. (6.1.13.9-T.05)

Surveillance & Detection

- (8) Ensure consistent disease surveillance systems and information provided through the national influenza surveillance system. (6.2.2.1-T.04) Refer to Table 13 (CDC Information Systems for Influenza Pandemic) Appendix 1 to Annex K
- (9) Provide technical assistance on establishing and maintaining a mechanism for ongoing communications between SLTT partners and critical health care infrastructure regarding availability of resources. (6.2.4.2-T.04)

Response & Containment

- (10) Encourage healthcare systems to consider treatment algorithms and healthcare delivery strategies (including infection control and medical surge) via dissemination of the guidance developed as part of HSC Actions and through exercises and drills (e.g., full-scale, functional, tabletop, web-based).
(6.3.4.8-T.01)

c) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

Transportation and Borders

Response & Containment

- (1) Provide technical assistance to DOS and DHS on implementing voluntary or mandatory travel restrictions and oversee exit screening during a pandemic.
(5.3.1.1-T.01)
- (2) Implement pre-departure, en route, and entry screening protocols, and the diagnosis and reporting of suspect cases of a novel influenza virus subtype.
(5.3.1.1-T.02)





- (3) In coordination with DHS and other Federal partners, implement traveler screening at U. S. international POE and domestic airports. (5.3.1.5-T.02)

Protecting Human Health

Preparedness & Communication

- (4) In coordination with SLTTs and other partners, develop plans to monitor adverse events associated with pandemic vaccine. (6.1.13.9-T.04)
- (5) Develop protocols for conducting vaccine effectiveness assessments that include at minimum laboratory-confirmed emergency department visits, hospitalizations, and deaths, though not all outcomes will be assessed through all mechanisms. (6.1.13.9-T.06)

Surveillance & Detection

- (6) Provide disease surveillance data to assist with decision making about effectiveness of mitigation strategies. (6.2.4.1-T.10)
- (7) Provide technical assistance to SLTT public health staff to assess epidemiologic surge capacity in their jurisdictions, to identify needs to accommodate increased demand during a pandemic, and to identify efforts to address critical gaps. (6.2.4.1-T.15)

3) Coordinating Office for Terrorism, Preparedness, and Emergency Response (COTPER).

Coordinate CDC's NIMS-compliant, DEOC-structured response to an influenza pandemic in collaboration with higher authorities, SLTT, and private sector partners; assemble and distribute key pharmaceutical and non-pharmaceutical countermeasures; and support SLTT agencies through cooperative agreements to achieve preparedness, readiness, and capacity to minimize morbidity and mortality.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

- (1) Ensure effective and efficient coordination of CDC's ESF #8 functions with HHS and DHS. (C.346-T.18)





- (2) In collaboration with other CC/CO/NIOSH, develop, execute, and support a preparedness strategy with plans, training and exercises that target CDC individuals, organizations, other public health workers, clinicians, and laboratory technicians needed to detect, investigate, respond to, and recover from an influenza pandemic. (C.357-T.02)
- (3) Maintain the CDC Pandemic Operation Plan including regular updates, exercises and related activities. (C.357-T.05)

Protecting Human Health

- (4) Provide specific financial assistance and cooperative agreement guidance to SLTT partners to plan and exercise for influenza pandemic. Strengthen epidemiology, surveillance, laboratory, communications, information systems, risk communication, professional training and overall horizontal and vertical coordination capacity to mitigate the effects of an influenza pandemic. (6.1.1.1-T.01)
- (5) Develop CDC stockpiled countermeasure distribution plans and develop strategies to deploy/ship critical assets to designated target groups. (6.1.13.1-T.01)
- (6) Convene meetings with Federal, state and local partners to develop regional distribution plans for medical material. Review the appropriateness of SNS distribution plans developed by the states; modify SNS plans as appropriate. (6.1.13.7-T.01)
- (7) Develop state-level distribution exercises. (6.1.13.7-T.02)
- (8) Assist with state exercises as needed. (6.1.13.7-T.03)
- (9) Provide the opportunity and guidance for SLTT governments to take advantage of Federally subsidized antiviral purchasing arrangements. (6.1.5.1-T.01)
- (10) Configure SNS and provide guidance in configuring SLTT stockpiles with material, equipment, and effective pharmaceutical and non-pharmaceutical countermeasures needed in an influenza pandemic as determined by subject matter experts. (6.1.6.1-T.02)



**b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)**

- (1) Working with Emergency Coordinators from CDC CC/COs/NIOSH identify at least personnel per functional IMS role to respond to the DEOC during a public health emergency.(C.345-T.05)
- (2) Provide a centralized management structure to coordinate and synchronize CDC actions associated with CDC's response to a pandemic event.(C.345-T.07)
- (3) During all phases of influenza pandemic preparedness and in cooperation with CC/CO/NIOSH identify appropriate CDC Senior Leadership Team (SLT) members, Subject Matter Experts (SMEs) and support staff to adequately represent CDC functions during a CDC response to pandemic flu. (C.345-T.09)
- (4) Assist the DEOC with continuity of operations (C.346-T.16)

Protecting Human Health***Preparedness & Communication***

- (5) Identify HHS/CDC role, including when HHS/CDC staff will deploy to assist with an outbreak investigation. (6.1.2.2-T.01)
- (6) Coordinate the necessary preparation to deploy CDC response teams. (6.1.2.2-T.02)

Response & Containment

- (7) Activate and distribute pharmacological and non-pharmacological countermeasures and other material from the SNS at the direction of higher authorities. (6.3.5.3-T.02)

4) Coordinating Center for Health Information and Service (CCHIS).

Support HHS/OS, SLTT partners, and the general public by developing and disseminating timely, accurate, science-based influenza pandemic status reports and public health messages. Contribute to CDC situational awareness by acquiring and analyzing U. S. healthcare utilization and resource data. Provide assistance to SLTT agencies and USG partners on the development or use of information systems that support real-time situational awareness during a pandemic.



**a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****International Efforts*****Preparedness & Communication***

- (1) Provide informatics guidance to COGH and outside the continental United States (OCONUS) partners' efforts to build epidemiology, surveillance, laboratory, diagnostics, and rapid response protocols and capabilities. (4.1.2.1-T.01)

Transportation and Borders***Surveillance & Detection***

- (2) Assist in the developing and distributing appropriate educational materials for travelers at US POE. (5.2.4.4-T.05)

Protecting Human Health***Preparedness & Communication***

- (3) Develop web-based, multilingual, pandemic influenza educational and risk communication materials and broadcast emergency response messages for media campaigns, the general public and health care workers. (6.1.3.2-T.01)
- (4) Establish key public and private partnerships to support communication outreach. (6.1.4.1-T.02)
- (5) Develop an SOP to use key public and private partnerships to disseminate urgent information. (6.1.4.1-T.04)
- (6) Strengthen disease surveillance, especially from acute care medical settings, to satisfy timely morbidity and mortality situational awareness at all levels of government. (6.2.4.1-T.11)

Surveillance & Detection

- (7) Develop a plan to improve the tracking of the number of pneumonia or influenza hospitalizations and associated deaths during a pandemic, including hospital census information. (6.2.2.2-T.01)
- (8) Ensure use of Preparedness and Workforce Management System (PWMS) for surge requirements of CDC staff. (6.2.2.3-T.08)





- (9) Provide informatics guidance and SOPs to enable SLTT partners' efforts to establish real-time situational awareness including assessing the local threat/impact, managing local public health and healthcare resources, implementing pharmacological interventions, and coordinating efforts with local jurisdictions and higher authorities. (6.2.2.10-T.03)

Institutions: Protecting Personnel and Ensuring Continuity of Operations

Preparedness & Communication

- (10) Provide technical assistance to DHS as they conduct forums, conferences and exercises with major industry, professional organizations and key infrastructure private sector entities to identify essential functions and critical planning; educate them on the effects of pandemic influenza and validate planning guidelines. (9.1.3.1-T.01)

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stage 0-2)

Transportation and Borders

Response & Containment

- (1) Provide informatics guidance and information systems technical assistance to CCID in their efforts to triage, diagnose, isolate, treat, quarantine, prophylax, and report ill/exposed persons travelers detected at U.S. ports of entry or border crossings. (5.3.1.5-T.03)

Protecting Human Health

Preparedness & Communication

- (2) Improve real-time environmental scanning and analysis capacity to (1) detect harmful rumors and misinformation for immediate agency response, (2) track changes in the public's information needs in order to more precisely target messages, and, (3) provide trend analysis to anticipate policy and communication issues as a pandemic unfolds. (6.1.3.1-T.06)

2) Coordinating Office for Global Health (COGH).

Provide leadership and work with partners around the globe to increase preparedness to prevent and/or control naturally occurring and man-made threats to health. Assist other USG





agencies to build international capacity to contain transmission of a pandemic influenza subtype in animals or humans at its source.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

International Efforts

Preparedness & Communication

- (1) Provide guidance to USG partners on influenza pandemic response planning. (4.1.1.1-T.02)
- (2) In collaboration with CCID, build epidemiologic, surveillance, laboratory, diagnostics, and rapid response capabilities. (4.1.2.1-T.02)

b) Pandemic Period (WHO Phase 6, USG Stages 3-6)

International Efforts

Response & Containment

- (1) Provide technical assistance to ministries of health on the use of pharmacological and non-pharmacological countermeasures during an influenza pandemic. (4.3.3.1-T.03) Refer to Appendix 5 (COGH) to Annex C.

3) National Institute for Occupational Safety and Health (NIOSH).

Monitor and assess factors related to workplace transmissions of influenza and the effects of the pandemic on the workplace. Develop and disseminate safety and health recommendations. Provide technical assistance and guidance regarding PPE, engineering, and administrative controls to assure safe and healthful working conditions.

a) Inter-Pandemic Period: (WHO Phase 1-2; USG Stage 0)

- (1) Determine the appropriate PPE requirements for healthcare workers (HCWs) exposed to the pandemic influenza virus based on the transmissibility characteristics, exposure routes, efficacy of control measures and the need of additional guidance.(C.353-T.02)
- (2) Conduct research, provide alternative approaches, facilitate the flow of information on the selection, use, and care of PPE for circumstances in which the





supply/demand channels are overwhelmed during an influenza pandemic (C.353-T.05)

- (3) Develop and disseminate information regarding appropriate engineering and other types of controls to protect workers (i.e., isolation room ventilation, containment, and barriers). (C.359-T.03)

Transportation and Borders

Preparedness & Communication

- (4) Provide occupational health guidance for personnel who may come into contact with travelers from affected areas or with infected birds or contaminated bird products. (5.1.4.1-T.03)

Protecting Human Health

Surveillance & Detection

- (5) Develop illness reporting system for other working populations at risk. As a subset, coordinate with CCID to develop a healthcare workers (HCW) illness reporting system (6.2.4.2-T.03)

Protecting Animal Health

Preparedness & Communication

- (6) In collaboration with other health communication/marketing activities at CDC and USDA, provide poultry and swine industry guidance documents and other training materials on the appropriate handling and processing of animals potentially associated with the transmission of HPAI/novel influenza. (7.1.3.3-T.06)

b) Pandemic Alert Period: (WHO Phase 3-5; USG Stages 0-2)

Protecting Human Health

Surveillance & Detection

- (1) Develop an SOP to expedite assessments of innovative protective devices, conduct evaluations and expedited certification of new respirator models in accordance with applicable performance metrics/regulatory standards, and





develop and initiate a research program to identify alternatives for use/re-use of respirators. (6.2.1.3-T.06)

Law Enforcement, Public Safety, and Security

Preparedness & Communication

- (2) Develop and disseminate Worker Safety and Health Guidance with a focus on first responders, HCWs (institutional and home care) and workers involved in disease control and eradication - providing both print and web based English and Spanish language materials. (8.1.3.1-T.04)

Institutions: Protecting Personnel and Continuity of Operations Plans

Preparedness & Communication

- (3) Provide guidance to other government agencies, unions, employers, and trade associations regarding worker registries, worker training, hazard assessment and communications, and PPE (9.1.4.1-T.06)

4) Coordinating Center for Environmental Health and Injury Prevention (CCEHIP).

Provide technical assistance and health education/health communication about environmental health and injury prevention issues related to an influenza pandemic.

a) Inter-Pandemic Period (WHO Phases 1-2, USG Stage 0)

- (1) Provide scientific support in assessing emerging psychosocial issues. (C.367-T.02)

5) Coordinating Center for Health Promotion (CoCHP).

Provide technical and health education/health communication on influenza pandemic issues to schools and special populations to include those with chronic diseases and/or disabilities, adolescents, children, babies, pregnant women and women of childbearing age, and older adults.



**a) Pandemic Period: (WHO Phase 6; USG Stages 3-6)**

- (1) Conduct special studies and evaluations regarding an influenza pandemic that can be conducted via rapid telephone surveys administered through the Behavioral Risk Factor Surveillance System (BRFSS).

6) Role of State, Local, Territorial and Tribal (SLTT) Governments

CDC acknowledges and recognizes the critical role of SLTT partners in a pandemic and their responsibilities for coordinating preparedness and response activities related to the public health aspects of complex emergencies and disasters within their respective jurisdictions. Additional guidance for integrating these activities with the Federal sector is provided at Annex G (State, Local, Territorial, and Tribal Support).

b. COORDINATING INSTRUCTIONS.

- 1) This plan becomes effective when signed by the Director, CDC.
- 2) Director's Critical Information Requirements (DCIR).

These are essential components of information the Director has identified as crucial to the decision making process in combating an influenza pandemic. DCIRs are the product of a careful and continual analysis of information requirements by CDC staff. The DCIR are the Director's and must be considered in that context. However, the process is completely dynamic. The Director will discard, adjust, and update DCIRs as the event progresses. Throughout the course of a Pandemic, other DCIRs will be identified to help focus resource allocations and efforts as the Director continues to make decisions. The Situational Awareness (SA) branch is the DCIR focal point and is responsible for the maintenance of the process, validating current DCIR relevance, and gaining Director's approval of subsequent DCIRs.

- a) Report new countries identified with potentially pandemic influenza virus infections in animals.
- b) Report all new instances of possible human to human transmission of potentially pandemic influenza virus infection.





- c) Report the first confirmation of potentially pandemic influenza infection in animals or humans in the western hemisphere.
 - d) Report the arrival in the U. S. of any human from abroad infected with potentially pandemic influenza.
 - e) Report the first death from animal-to-human transmission of potentially pandemic influenza in the United States.
 - f) Report the development of sustained human-to-human transmission of a potentially pandemic influenza virus (transition to WHO Phase 4).
 - g) Report multiple locations of human outbreaks overseas from pandemic influenza.
 - h) Report the first human case of pandemic influenza acquired in the United States.
 - i) Report the first human-to-human spread of pandemic influenza in the United States.
 - j) Report all locations of confirmed human outbreaks of pandemic influenza in the United States.
 - k) Report the pandemic severity index (requires mortality rate and attack rate).
 - l) Report communities that are unable to sustain a case containment strategy to control pandemic influenza transmission.
 - m) Report the first death from human-to-human transmission of pandemic influenza in the United States.
 - n) Report detection of the genetic mutation in pandemic influenza virus that may make the virus resistant to antiviral drugs.
 - o) Report detection of the antigenic variants of pandemic influenza that may make vaccines less effective or ineffective.
- 3) CC/CO/NIOSH referenced in Annex A (DEOC Task Organization) will organize their personnel assets to ensure 24/7 manning of the DEOC to accomplish their missions, roles, and responsibilities in accordance with the mode and tiered response required.
- 4) Emergency personnel recall plans will be maintained and will be implemented upon activation of the DEOC.





- 5) Each CC/CO/NIOSH will develop a WHO phased influenza pandemic plan/Standing Operating Procedure (SOP) addressing response operations in support of this Operation Plan (OPLAN), and will be prepared to provide back briefs to the Director, CDC regarding those plans when requested.
- 6) There is a range of functions and tasks that CDC will conduct during the six different WHO Phases (refer to paragraph 1.b.3.k, Table 1 above). Because the WHO Phases and the USG Stages are broadly defined, all elements of CDC must consider a variety of specific scenarios to identify additional CDC-related activities that would be needed to plan for and respond to an influenza pandemic. Refer to Appendix 9 (Phased Scenarios) to Annex C.
- 7) All public information materials produced during a pandemic event will be coordinated with Emergency Communication System (ECS) leadership and with the appropriate internal subject matter experts (SMEs) prior to public release. Information products authored by CDC staff or published by CDC and released for public use will be scientifically sound and technically accurate while meeting the need for the timely release of information. Refer to Appendix 2 (Expedited Approval Process for Avian/Pandemic Influenza Materials) to Annex J.
- 8) Each CC/CO/NIOSH will develop plans to support internal CDC surge operations while simultaneously maintaining the essential functions that fulfill CDC's basic public health mission. Accordingly, each CC/CO/NIOSH must assess probable short-falls and cross-train personnel appropriately.
- 9) Each CC/CO/NIOSH will develop plans to support CDC surge operations in support of SLTT partners. This SLTT surge support, resources permitting, will be tiered: first tier will be to support SLTT shortfall requirements from existing on-site CDC locations; and second tier will be to support SLTT shortfall requirements off-site at SLTT locations.
- 10) Ensure ITSO is provided a list of all essential systems, services and anticipated hardware expansion requirements.
- 11) Identify anticipated capacity and hardware requirements of all surveillance systems.





4. SUPPORT SERVICES

Support Services for CDC in an influenza pandemic will require a high level of preparation, anticipation, and flexibility across the entire spectrum of support service functions. Support functions include managing cost-related activities and influenza emergency funds, purchase and acquisition of CDC resources and services, deployment of personnel and equipment, and coordination of all movements and CDC human resource activities. During the inter-pandemic period, support service functions are the responsibility of the various CC/CO/NIOSH. Critical support service areas within CDC include the Financial Management Office (FMO), Procurement and Grants Office (PGO), Office of Health and Safety (OHS), Atlanta Human Resources Center (AHRC), the Division of Emergency Operations (DEO), and the Office of Security and Emergency Preparedness (OSEP). The logistics section of DEO is responsible for providing pandemic related services and materiel in support of CDC assets starting with the Pandemic Alert Period (after DEOC activation) and continuing throughout the duration of the pandemic. For detailed information refer to http://eocportal/deployment_welcome_1.asp website on the DEOC/LST Emergency Deployment Information Page, click on “Standard Operating Procedures” (SOP) under the Deployment Section.

Support Services to DEOC/IMS (Incident Management Structure) include:

a. FINANCE.

- 1) In the Inter-Pandemic Period, financial activities are decentralized among CC/CO/NIOSH. Activities include tracking incident costs, conducting cost analysis and cost estimates, and providing funding as needed. Starting with the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic response, pandemic related financial activities are managed from the DEOC.

b. PROCUREMENT.

In the Inter-Pandemic Period, procurement activities are decentralized among CC/CO/NIOSH. Activities include managing all aspects of accessing funds and procuring resources and services through appropriate means to support normal operations. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all pandemic related procurement





activities are managed from the DEOC in accordance with the DEOC Emergency Response Procurement Operations Plan. The Incident Command Structure (ICS) and the DEOC Emergency Response Procurement Operations Plan call for the formation of the Finance and Procurement Accountability Team (FPAT) immediately following DEOC activation. The FPAT will support the activities of the Joint Field Operations (JFO) DEOC/PGO Contracting Officer(s) who is deployed as part of the Logistics Support Team (LST). The FPAT will also coordinate procurement activities being accomplished by Contracting Officers throughout CDC.

c. DEPLOYMENT.

Deployment of personnel and equipment entails a wide array of actions to enable CDC to support international partners and SLTT governments. In the Inter-Pandemic Period, deployment activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all influenza pandemic deployment activities are managed through the IMS, Deployment Coordinator and the Chief of Logistics in the DEOC.

d. TRANSPORTATION.

Transportation describes the movement of personnel, specimens, supplies, and equipment. In the Inter-Pandemic Period, transportation activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all influenza pandemic related transportation activities are managed by the IMS Chief of Logistics located in the DEOC.

e. SECURITY.

Security in this instance includes, but is not limited to physical security (force protection) of CDC facilities (owned and leased), Personnel Security, Communications Security (SCIF ops) and the Security Command Center (SCC). In the Inter-Pandemic Period, the Office of Security and Emergency Preparedness (OSEP) will attach certain security personnel to select CC/CO/NIOSH. During the Pandemic Alert Period and for the duration of the Pandemic, all influenza pandemic related security activities will be managed by the OSEP Liaison assigned to the Director's Emergency Operations Center (DEOC).



**f. PERSONNEL.**

Hiring and replacing critical personnel will be coordinated by the Atlanta Human Resources Center (AHRC) and CDC Office of the Chief Operating Officer (OCOO). In the Inter-Pandemic Period, personnel activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period and Pandemic Periods, all influenza pandemic related personnel activities and tracking of employees are managed by the HR functional representative in the Finance and Administrative Section located in the DEOC. The protection of the health and safety of the internal CDC workforce during pandemic operations is critical to the responsiveness and continuity of CDC. Activities in support of this goal include the provision of routine and pandemic-related occupational health services, deployment medical preparations and interventions, PPE, workforce vaccinations, and other countermeasures.

5. MANAGEMENT AND COMMUNICATIONS**a. MANAGEMENT.****1) Director's Emergency Operations Center (DEOC).****a) Purpose:**

The DEOC is the location where the management of the influenza pandemic will take place. The Incident Management Structure located in the DEOC is the focal point for CDC leadership and SMEs during WHO Phase 4 – 6 (USG Stage 2 – 6). CDC uses the Incident Management System structure (IMS) to maintain situational awareness, enhance collaboration and coordination, communicate critical information, and make and implement decisions. In response to the CDC Director's guidance, the Director, DEO acts as the Incident Manager (IM); directs and monitors operational, administrative, and logistical support; and coordinates CDC resources and information with Federal, SLTT and international agencies.



**b) General Planning Guidance:**

When WHO Phase 4 is declared, the Director of Emergency Operations will become the operational lead as the Incident Manager supported by the IMS and with the scientific/clinical/technical expertise from all of CDC for crisis management. A non-resident management program (outside of DEOC 21) will be put in place to coordinate activities prior to DEOC activation. During activation, all Requests for Information/Action will be processed through the DEOC incident management staff so that it becomes the single source of Requests for Information/Action (RFI/RFA), requests for resources, deployment coordination, and follow up. Refer to Annex A (DEOC Task Organization).

c) CDC Continuity of Operations Plan (COOP):

COOP is a component of the overall CDC Integrated Emergency Management Plan (IEMP). The IEMP provides guidance and procedures for managing the response to any emergency or threat of emergency to operations at all CDC locations.

2) Order of Succession.

- a) In the event an influenza pandemic affects CDC senior policy and decision makers, or causes a shutdown of operations of CDC, the Director's authority may be delegated. To ensure continuity of CDC leadership, an order of succession is outlined below and in the IEMP. Refer to Section 3. 0, Page 3-1 (IEMP Version 4, April 2006).
 - (1) Chief Operating Officer.
 - (2) Director, CCID.
 - (3) Director, CCEHIP.
 - (4) Director, OWCD.
- b) In the absence of specific guidance, the successor for the CC/CO/NIOSH Directors is the organizations' Chief Management Official or designee.





3) Crisis Communication.

a) Purpose:

An important component of national preparedness for an influenza pandemic is informing the general public and medical and public health communities world-wide about the potential threat and providing a solid foundation for their actions. These actions must be based on scientifically derived risk communication principles that are critical before, during, and after an influenza pandemic.

b) General Planning Guidance:

Having critical information in place before, during, and after an influenza pandemic will help reduce public anxiety and panic while promoting appropriate health actions. In order to ensure inclusion from all SME's, before and after an event, critical information is develop, approved, and disseminated collaboratively among NCHM, ICU, and other organizational units within CDC. During an event the Emergency Communication System (ECS) works with the ICU and other organizational units in the CDC to accomplish this task. During an event the ECS serves as the core staff for the JIC in the CDC's DEOC. Communications staff from the ICU work collaboratively with the ECS in the JIC, and additional surge capacity is provided by appropriate staff throughout the agency. The JIC is the place where health communication, health education, and public affairs specialists coordinate rapid, agency-wide dissemination of health information and messages to protect public health. The JIC staff also works directly with communicators from other responder agencies at the federal, state, and local levels to ensure that health messages reach the public, media, public health workforce, clinicians, policy makers, and partners. Preparedness efforts for the immediate and pre-pandemic communication needs of CDC as part of the Federal government's preparatory efforts are overseen by leaders from the National Center for Health Marketing, the Office of Enterprise Communication, and the ICU. These efforts include developing influenza pandemic preparedness messages and informational materials as well as establishing and distributing these materials to major stakeholders. JIC operations provide critical, emergency event





information to various audiences through multiple channels. Clearance of crisis communication products will follow clearance procedures outlined in Appendix 2 of Annex J.

c) Responsibilities and Authority:

The HHS Assistant Secretary for Public Affairs (ASPA) will lead the Federal government's public health communications efforts during a pandemic. As the primary source of science-based information, the Director, CDC remains the principal spokesperson for CDC; however, the authority for risk communication has been delegated to the Director, National Center for Health Marketing (NCHM), who works closely with the ASPA and health risk communication professionals throughout NCHM and CDC. Refer to Annex J (Crisis Communication)

b. INFORMATION MANAGEMENT.

1) Purpose.

Broad, real-time, situation awareness is critical to successfully manage CDC's response to an influenza pandemic, inform higher level authorities and the general public, and support SLTT preparedness and response efforts. Situational awareness will be derived from timely access to analyzed information about illness and death; the availability, location, and utilization of critical resources throughout the U. S. public health and medical sectors (ESF #8); and details of key intervention activities that are directed at ill, exposed, or susceptible persons to slow transmission and minimize the influenza pandemic impact.

2) General Planning Guidance.

CDC will be required to support and coordinate multiple information gathering, analysis, and dissemination efforts, in collaboration with SLTT and international partners, during an influenza pandemic. Multiple streams of data, information, and intelligence concerning morbidity and mortality, resources, and interventions must be quickly and regularly assembled to maintain an accurate common operating picture that will inform decision-makers and guide the coordination of a comprehensive national response. The full spectrum of informatics support will be necessary to manage influenza pandemic operations.





The National Center for Immunization and Respiratory Diseases (NCIRD), in coordination with the National Center for Public Health Informatics (NCPHI), the Coordinating Office for Global Health (COGH), and the Office of Security and Emergency Preparedness (OSEP) will ensure surveillance systems, information systems, and analysis activities are capable of obtaining diverse data from the ESF #8 sector for analysis and timely decision making and are coordinated within CDC and with key partners including SLTT.

3) Essential Elements of Information Include:

- a) Early detection of human illness including case and cluster investigations (clinical, laboratory, risk factor) and timely documentation of pandemic spread and impact; characteristics of the circulating virus subtype.
Refer to Annex B (Disease Intelligence).
- b) Human and material resource availability (including surge capacity), location, and utilization.
- c) Utilization and effectiveness of interventions including case management (isolation); contact management (contact tracing and quarantine); vaccination; antiviral medications; social distancing, and other non-medical countermeasures; analysis of vaccine, and antiviral adverse events.

Refer to Annex K (Information Management).

ACKNOWLEDGE RECEIPT OF THIS OPERATION PLAN TO THE DEOC.

JULIE LOUISE GERBERDING, M.D., M.P.H.

Director

Centers for Disease Control and Prevention



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

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